



# The Data Revolution and Initial Recovery and Response

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# Agenda

- Lessons of the past 18 months
- Hurricane Katrina: when terrestrial infrastructure is missing
- New options with IP and growing role of data
- Impact of mobile broadband



# Disasters Highlight Critical Role of Communications Technologies



- Recent disaster focused attention on vulnerability of terrestrial infrastructure, even in developed countries
- Lack of communications impacts entire response effort
  - Lack of situational awareness slows effective deployment of resources
  - Response teams isolated
- Restoring some communications infrastructure critical first step to humanitarian response

Initial TSF Deployment  
Yogyakarta, Earthquake, May 2006

# Lessons from New Orleans

- Terrestrial infrastructure vulnerable
- Operability failed
- Interoperability unsolved
- VSATs too cumbersome
- Satphones came up short
  - Insufficient deployment of equipment
  - Complaints of unreliable service, dropped calls
  - Unfamiliar to users
  - Low data rates



# Disaster Response over 64kbps service

MOBILE COMMAND POST



DAMAGE INVENTORY



REPORTING



VIP COMMS



**HUMANITARIAN  
CALLS**



# Katrina: Restoration and Recovery

Inmarsat widely deployed in US Gulf Coast in Fall 2006 across full range of restoration and recovery activities:

- Emergency Communications
  - Restore operability
  - Provide communications among non-interoperable groups
- Restoration of lifeline service
- Situational awareness
- Damage and needs assessment
- Continuity of Government
- Evacuation and mass care management



*Growing everyday use of  
wireless mobility  
reshaping emergency response*



# First Responder Requirements

- Reliability
- Operability
- Interoperability
- Voice
- Data
- Mobility
- Ease of use



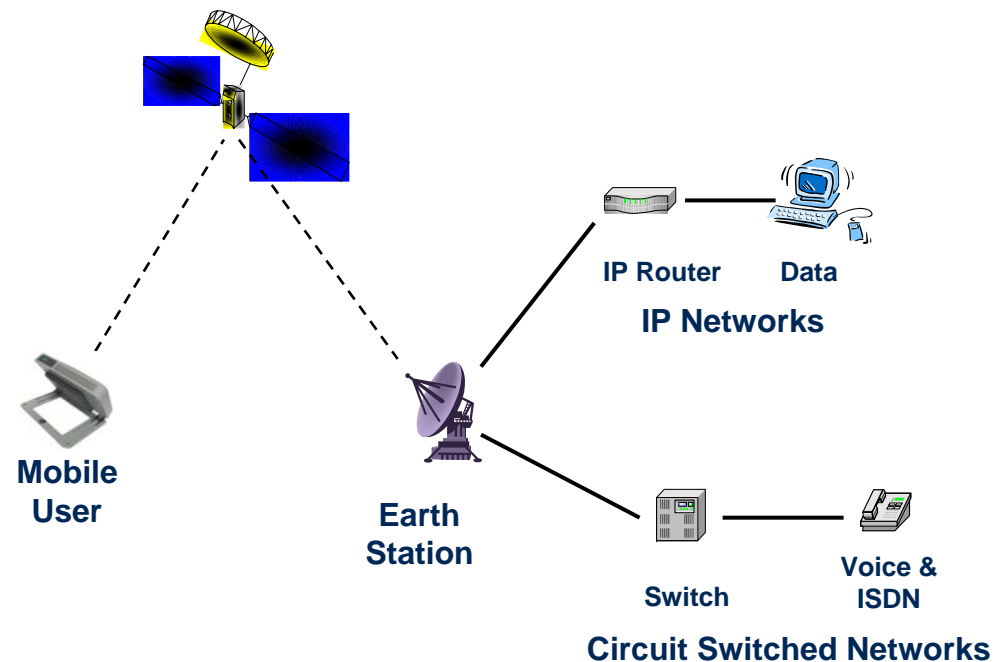
# First Response: Familiar Solutions in a New Setting

<b>DOD Requirement</b>	<b>First Responder Application</b>	
Situational Awareness	Local officials, “first on the spot” responsibility for coordinating response	
Communications to mobile field teams; hub & spoke	Disaster inventory; wildfires; extending response to outlying areas; COOP	
Communications-on-the-move	“Second response” (i.e., CBN incident, flooding)	
Mobile command post	Evolution from RV to SUV; responder & humanitarian comms	

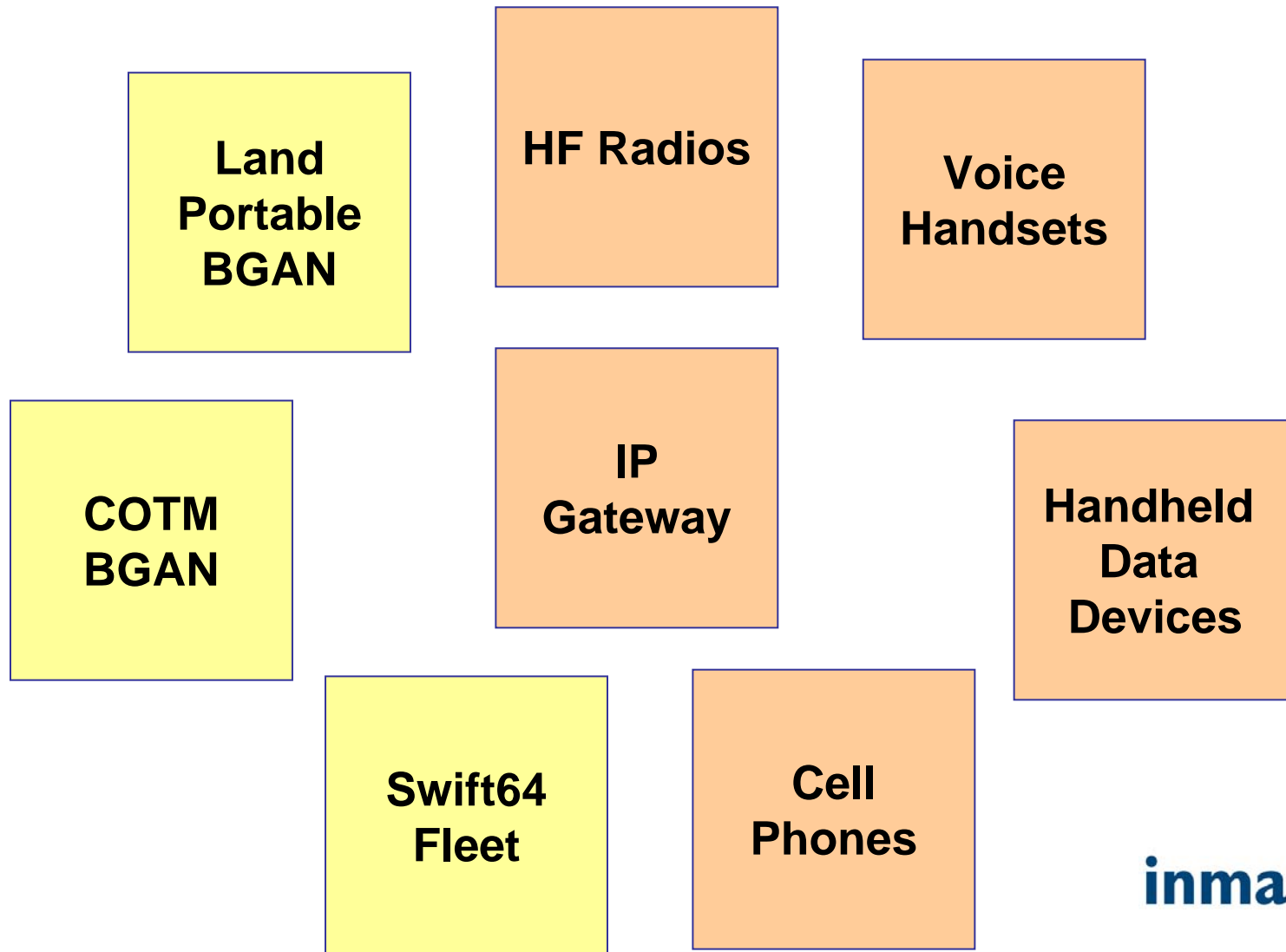


# Broadband Global Area Network (BGAN): Mobile Broadband to the First Responder

- High-speed data network
- Rates up to 492 kbps
- Worldwide coverage
- Guaranteed data rates
- Provides Interoperability: Supports IP and circuit-switched applications



# Arrival of IP Networks: New Options for Disaster Response Networks



# First Response: Familiar Solutions in a New Setting

- Voice remains king of the disaster response Comms kit
- Growing reliance on data in mobile offices at isolated locations mirrors explosion in IP applications in everyday life
- New connectivity solutions allow first responders to access data and voice sooner and more effectively





## Broadband for a mobile planet™

